

IN THE CLAIM:

1. (Currently Amended) A process for erasing or illustrating a printing style of a wet offset printing form, comprising the steps of;

providing a form which contains on a surface forming the printing style a photocatalytically and thermally modifiable material that can be brought into a hydrophilic state
5 by irradiation with light and into a lipophilic state by heating, ~~said form including an IR absorption component;~~

erasing or producing a printing style by irradiating said surface with UV radiation; and feeding water to said surface during the irradiation;

wherein a lower humidity is set in the lipophilic state than in the hydrophilic state.

2. (Previously Presented) A process in accordance with claim 1, wherein a humidity of at least 60% is generated at said surface for the UV irradiation, and it is maintained for the duration of the UV irradiation.

3. (Previously Presented) A process in accordance with claim 1, wherein a preset temperature is set and maintained for the duration of the UV irradiation.

4. (Previously Presented) A process in accordance with claim 1, wherein an illustrated surface of said form is irradiated over its entire area for erasing.

5. (Previously Presented) A device for repeatedly illustrating a wet offset printing form, the device comprising:

a form with a surface that can be or is already illustrated, the form having a photocatalytically and thermally modifiable material, which can be brought photocatalytically into a hydrophilic state by irradiation with light and into a lipophilic state by heating;

an imaging means for producing a printing style by heating said photocatalytically and thermally modifiable material in the pattern of an image;

an erasing means for erasing the printing style produced, wherein said erasing means has one or more radiation sources for daylight and/or UV light; and

a humidifying unit for air conditioning by which a preset humidity can be generated and maintained at said form to be lower in said lipophilic state and higher in said hydrophilic state.

6. (Original) A device in accordance with claim 5, wherein said humidifying unit includes an encapsulation for said wet offset printing form and a plurality of cylinders of a printing unit so as to generate and maintain a preset humidity within said encapsulation.

7. (Original) A device in accordance with claim 6, wherein said humidifying unit comprises at least one humidity sensor arranged within said encapsulation and a regulator, to which the humidity value detected by the humidity sensor is sent as a controlled variable.

8. (Original) A device in accordance with claim 5, wherein said erasing means has one

or more radiation sources for the full-area irradiation of said surface.

9. (Previously Presented) A device in accordance with claim 5, wherein the radiation source or radiation sources of said erasing means emits/emit a large percentage of radiation of a wavelength of at most 387 nm, wherein a wavelength spectrum emitted by the radiation source has a peak at a wavelength of 387 nm.

10. (Original) A device in accordance with claim 5, wherein said printing form is arranged detachably and nondetachably on a printing form cylinder in a wet offset web-fed rotary printing press and said erasing means is directed toward said printing form cylinder and preferably extends over a length of said printing form measured in parallel to an axis of rotation of said printing form cylinder over such an extent that a full-area, uniform irradiation of said printing form can be carried out.

11. (Original) A device in accordance with claim 5, wherein said imaging means comprises a plurality of radiation sources for the irradiation of said printing form in the pattern of an image.

12. (Previously Presented) A device in accordance with claim 5, wherein said imaging means includes a radiation source with one of IR lasers and NIR lasers.

13. (Currently Amended) A device in accordance with claim 5, wherein said printing form is arranged detachably or nondetachably on a printing form cylinder in a wet offset printing press and said imaging means includes a radiation source sources directed toward said printing form cylinder and are arranged next to one another in parallel to an axis of rotation of said printing form cylinder.

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14. (Previously Presented) A device in accordance with claim 5, wherein:
said printing form includes an IR absorption component.

15. (Previously Presented) A device in accordance with claim 14, wherein:
said IR absorption component is mixed with said modifiable material.

16. (Previously Presented) A device in accordance with claim 14, wherein:
said IR absorption component and said modifiable material are separate layers in said printing form.

17. (Previously Presented) A process in accordance with claim 1, wherein:
said IR absorption component is mixed with said modifiable material.

18. (Previously Presented) A process in accordance with claim 1, wherein:
said IR absorption component and said modifiable material are separate layers in said

printing form.

19. (Currently Amended) A wet offset printing arrangement comprising:

a printing form having a photocatalytically and thermally modifiable material which is photocatalytically changed into a more hydrophilic state by irradiation with light, and into a lipophilic and a less hydrophilic state by heating; ~~said printing form includes an IR absorption~~
5 ~~component;~~

an imaging device heating said photocatalytically and thermally modifiable material in a pattern of an image;

a UV radiation source substantially uniformly exposing said photocatalytically and thermally modifiable material; and

10 a humidifying unit providing a humidity at said form which is lower in said lipophilic state and higher in said hydrophilic state.

20. (Previously Presented) An arrangement in accordance with claim 19, wherein:

said printing form includes a carrier layer and an insulating layer, said insulating layer being arranged between said carrier layer, and one of said IR absorption component and said modifiable material;

5 said IR absorption component is one of mixed with said modifiable material, or in a separate layer from said modifiable material.

21. (New) A process for erasing or illustrating a printing style of a wet offset printing form, comprising the steps of;

providing a form which contains on a surface forming the printing style a photocatalytically and thermally modifiable material that can be brought into a hydrophilic state
5 by irradiation with light and into a lipophilic state by heating;

erasing or producing a printing style by irradiating said surface with UV radiation; and
feeding water to said surface during the irradiation;

wherein a preset temperature is set and maintained for the duration of the UV irradiation.

22. (New) A device for repeatedly illustrating a wet offset printing form, the device comprising:

a form with a surface that can be or is already illustrated, the form having a photocatalytically and thermally modifiable material, which can be brought photocatalytically
5 into a hydrophilic state by irradiation with light and into a lipophilic state by heating;

an imaging means for producing a printing style by heating said photocatalytically and thermally modifiable material in the pattern of an image;

an erasing means for erasing the printing style produced, wherein said erasing means has one or more radiation sources for daylight and/or UV light; and

10 a humidifying unit for air conditioning by which a preset humidity can be generated and maintained at said printing form, wherein a preset temperature is set and maintained for the

duration of the UV irradiation.

23. (New) A wet offset printing arrangement comprising:

a printing form having a photocatalytically and thermally modifiable material which is photocatalytically changed into a more hydrophilic state by irradiation with light, and into a lipophilic and a less hydrophilic state by heating;

5 an imaging device heating said photocatalytically and thermally modifiable material in a pattern of an image;

a UV radiation source substantially uniformly exposing said photocatalytically and thermally modifiable material;

10 a temperature regulator setting and maintaining a preset temperature for the duration of the UV irradiation.

24. (New) An arrangement in accordance with claim 19, wherein:

said printing form includes an IR absorption component.